

CLASSIFICATION: **UNCLASSIFIED****Exhibit P-40, BUDGET ITEM JUSTIFICATION**

DATE:

February 2004

## APPROPRIATION/BUDGET ACTIVITY

Aircraft Procurement, Navy/APN-5 Aircraft Modifications

## P-1 ITEM NOMENCLATURE

ID SYSTEMS

Program Element for Code B Items:

BLI 058200

Other Related Program Elements

	Prior Years	ID Code		FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	To Complete	Total
QTY		A										
COST (In Millions)		A			1.8	1.6	7.3	11.4	11.6	11.9	300.8	346.4

## DESCRIPTION/JUSTIFICATION:

MK XIIA Mode 5 provides improved secure cooperative combat identification throughout Identification Friend or Foe (IFF). MODE 5 is a product improvement which is designed to be installed throughout engineering changes to digital MK XII interrogators and transponders including the APX-117, APX-118, UPX-37, APX-111, and RT-1832. MODE 5 is designed to be installed in all Navy T/M/S aircraft which are currently MODE 4 IFF capable (49 T/M/S aircraft). MODE 5 is developed in cooperation with NATO and is governed by STANAG 4193. MODE 5 was designated a "JROC special interest" program in March 2001 and is interoperable across all services. ORD # 577-06-01. FY05 funding will be used to begin Mode 5 Engineering Change Proposal (ECP) non-recurring intergration efforts for production aircraft.

FY03 funding for this OSIP resides in BLI 052500 under OSIP number 15-03.

(TOA, \$ in Millions)

OSIP No.	Description	Prior Years	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	To Complete	Total
15-03	MARK XIIIA Mode 5 IFF			1.8	1.6	7.3	11.4	11.6	11.9	300.8	346.4

<b>Total</b>			1.8	1.6	7.3	11.4	11.6	11.9	300.8	346.4
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Note: Totals may not add due to rounding.

Exhibit P-3a

Individual Modification

MODIFICATION TITLE: MARK XIIA MODE 5 IFF OSIP (15-03)MODELS OF SYSTEMS AFFECTED: VARIOUS (49 Separate T/M/S)TYPE MODIFICATION: CAPABILITY IMPROVEMENT

DESCRIPTION/JUSTIFICATION: MK XIIA Mode 5 provides improved secure cooperative combat identification throughout IFF. MODE 5 is a product improvement which is designed to be installed throughout engineering changes to digital MK XII interrogators and transponders including the APX-117, APX-118, UPX-37, APX-111, and RT-1832. MODE 5 is designed to be installed in all Navy T/M/S aircraft which are currently MODE 4 IFF capable (49 T/M/S aircraft). MODE 5 is developed in cooperation with NATO and is governed by STANAG 4193. MODE 5 was designated a "JROC special interest" program in March 2001 and is interoperable across all services. ORD # 577-06-01

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: MODE 5 completed a brassboard development in December 1997. Modeling and Simulation to demonstrate interoperability was completed in February of 1998 to support NATO STANAG development. Proof of concept flight testing completed in December 1999. A Preliminary Design Review (PDR) for the proposed ICP to incorporate MODE 5 in the APX-118 was completed in July 2001. Contracts to develop a prototype Cryptographic Module and ECP kit are presently being executed. Milestone B was completed in May 2003. Prototype development will occur from April 2003 thru April 2004. Installation Kits Non-recurring begins integration with host platforms in June 2003. Milestone C is scheduled for September 2005.

FINANCIAL PLAN: (TOA, \$ in Millions)

	Prior Years		FY 2003		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY2009		To Complete		Total	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
RDT&E		9.9		11.3		10.5		5.7												
PROCUREMENT																				
Installation Kits																				
PLATFORM Installation A-Kits																				
Installation Kits N/R						1.2		1.1												
Installation Equipment																				
MODE 5 IFF HARDWARE B-KIT																				
Installation Equipment N/R								0.4												
Engineering Change Orders																				
Data																				
Training Equipment						*		*												
Support Equipment						0.6														
ILS																				
Other Support																				
Interim Contractor Support																				
Installation Cost																				
<b>Total Procurement</b>						<b>1.8</b>		<b>1.6</b>												

Notes:

1. Totals may not add due to rounding
2. Asterisk indicates amount less than \$50K

## Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: VARIOUS (49 Separate T/M/S)MODIFICATION TITLE: MARK XIIA MODE 5 IFF OSIP (15-03)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: FIELD INSTALL KITS and VENDOR DEPOT ECP INSTALLATION

ADMINISTRATIVE LEADTIME: \_\_\_\_\_

PRODUCTION LEADTIME: \_\_\_\_\_

CONTRACT DATES: FY 2003: \_\_\_\_\_

FY 2004: \_\_\_\_\_

FY 2005: \_\_\_\_\_

DELIVERY DATE: FY 2003: \_\_\_\_\_

FY 2004: \_\_\_\_\_

FY 2005: \_\_\_\_\_

(\$ in Millions)

Cost:	Prior Years		FY 2003		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		To Complete		TOTAL	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
FY 2002 & PY ( ) kits																				
FY 2003 ( ) kits																				
FY 2004 ( ) kits																				
FY 2005 ( ) kits																				
FY 2006 ( ) kits																				
FY 2007 ( ) kits																				
FY 2008 ( ) kits																				
FY 2009 ( ) kits																				
To Complete ( ) kits																				
TOTAL																				

## Installation Schedule

	FY 2002 & Prior	FY 2003				FY 2004				FY 2005				FY 2006				FY 2007			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In																					
Out																					

  

	FY 2008				FY 2009				To Complete	Total
	1	2	3	4	1	2	3	4		
In										
Out										